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EXAMINER
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BRINEY III, WALTER F

ART UNIT	PAPER NUMBER
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2644

DATE MAILED: 04/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/993,664

Applicant(s)

KRAFT ET AL.

Examiner

Walter F Briney III

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 20-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 20-25, 27-34 and 36-38 is/are rejected.
- 7) ☒ Claim(s) 26 and 35 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. **Claims 20, 21, 25, 30, and 34 rejected under 35 U.S.C. 103(a) as being unpatentable over Freedland (US Patent 6,148,175).**

**Claim 20** is limited to *a method of distorting an acoustic signal*. Freedland discloses an audio entertainment system. See Abstract. Referring to the embodiment of figure 3, Freedland basically discloses a system including a plurality of wireless transceivers (110a') through (110n'). The transceivers are disclosed to be wireless telephones, as such sound effect processing is incorporated *during a call between a first and second communication terminal*. See column 3, lines 6-27. Each transceiver is coupled to a sound effects processor (122) whose purpose is to *distort the acoustic sound input through microphone (118) in response to a user's independent selection, i.e. selectively distorting the acoustic signal input by a user of a first mobile communication terminal in accordance with a distortion profile to provide a distorted acoustic signal transmitted from the first terminal to a second terminal during a call with a user of the second communication terminal*. See column 7, lines 15-40. Because the user of the communication terminal is enabled to independently select the desired outgoing sound effect processing, i.e. *distortion profile*, to be applied, it follows that

there exists a data structure including the option selection of a *distortion profile*.

However, there is no suggestion in the disclosure of Freedland that a *phonebook* exists in any of the wireless telephones (110) shown in figure 3.

The recitation concerning a *phonebook* is a non-functional descriptive limitation. A phonebook may be defined as a data structure for holding contact information and addressable by name and/or function, e.g. white and yellow pages. However, there is no suggestion in the claim that the phonebook therein must store this information, in fact, the phonebook is only positively recited as containing distortion profiles, which certainly fall outside of the traditional view of a paper phonebook. As such, it would have been obvious to one of ordinary skill in the art at the time of the invention that any *data structure containing a plurality of selectable options including a distortion profile selection option* would meet the claim limitations. Furthermore, the examiner takes Official Notice of the fact that wireless telephones contain a plurality of options inherently stored in a *data structure* such as volume levels, ring types, contact numbers, and - as shown in Freedland - distortion profiles. These options enable a user to customize their phone to meet their personal tastes and habits.

It would have been obvious to one of ordinary skill in the art at the time of the invention to include a plurality of options besides distortion profiles as were known in the prior art for the purpose of enabling user customization.

**Claim 21** is limited to a *method of enabling a user of a first mobile communication terminal in accordance with a distortion profile to selectively distort an acoustic signal, input to the first communication terminal during a call with a user of a*

*second communication terminal*. The above limitation has been shown to be obvious in view of Freedland. Furthermore, Freedman discloses a *processor* (122) as seen in figure 3 for affecting the acoustic input of microphone (118), which is inherently input by a user. Freedland discloses that the sound effect applied is *user selected*. See column 7, lines 30-34. The wireless telephones of figure 3 also include transmitters (112b) for transmitting the affected acoustic signal to each other by way of a signal distribution unit (130"), i.e. *the processor controls transfer of the distorted acoustic signal to a communication network which transmits the distorted acoustic signal to the second communication terminal*. Quite clearly, the receiving wireless telephone converts the affected signal from the transmitting telephone and outputs it as an acoustic signal by way of speakers (116). Because the user of the communication terminal is enabled to independently select the desired outgoing sound effect processing, i.e. *distortion profile*, to be applied, it follows that there exists a data structure including the option selection of a *distortion profile*. However, there is no suggestion in the disclosure of Freedland that a *phonebook* exists in any of the wireless telephones (110) shown in figure 3.

The recitation concerning a *phonebook* is a non-functional descriptive limitation. A phonebook may be defined as a data structure for holding contact information and addressable by name and/or function, e.g. white and yellow pages. However, there is no suggestion in the claim that the phonebook therein must store this information, in fact, the phonebook is positively recited as containing distortion profiles, which certainly fall outside of the traditional view of a paper phonebook. As such, it would have been obvious to one of ordinary skill in the art at the time of the invention that any *data*

*structure containing a plurality of selectable options including a distortion profile selection option* would meet the claim limitations. Furthermore, the examiner takes Official Notice of the fact that wireless telephones contain a plurality of options inherently stored in a *data structure* such as volume levels, ring types, contact numbers, and - as shown in Freedland - distortion profiles. These options enable a user to customize their phone to meet their personal tastes and habits.

It would have been obvious to one of ordinary skill in the art at the time of the invention to include a plurality of options besides distortion profiles as were known in the prior art for the purpose of enabling user customization.

**Claim 30** is essentially the same as claims 20 and 21, as covered by Freedman, but also recites *a user interface where the user can select distortion selections*. This is an inherent property of each wireless telephone disclosed by Freedman since each telephone allows user selection of sound effects. See column 7, lines 30-34.

Therefore, Freedman makes obvious all limitations of the claim.

**Claim 25** is limited to *a method according to claim 20*, as covered by Freedman. As suggested in column 7, lines 30-34, each user selects their own type and degree of sound alteration. The type of distortion corresponds to a *pre-defined distortion profile*. Therefore, Freedman makes obvious all limitations of the claim.

**Claim 34** includes essentially the same limitations as those presented in claim 25, as covered by Freedman, and is rejected for the same reasons.

2. **Claims 22-24, 27-29, 31-33 and 36-38** are rejected under 35 U.S.C. 103(a) as being unpatentable over Freedland in view of Bottoms et al. (US Patent 5,559,792).

**Claim 22** is limited to *a method according to claim 20*, as covered by Freedman. Freedman does not disclose the structure of the sound effects processor (122). Therefore, Freedman makes obvious all limitations of the claim with the exception *wherein distortion of the acoustic signal is provided by an analog signal processor*.

Bottoms discloses that the voice modification circuitry (figure 2, element 130) can be implemented using discrete analog components (i.e. *wherein the distortion of the acoustic signal is made in an analog signal processor*) (column 5, lines 14-15).

It would have been obvious to one of ordinary skill in the art to implement the sound effects processor of Freedman using discrete analog components as taught by Bottoms simply because Freedman does not disclose how to implement the sound effects processor.

**Claim 31** includes essentially the same limitations as those presented in claim 22, as covered by Freedman in view of Bottoms, and is rejected for the same reasons.

**Claim 23** is limited to *a method according to claim 20*, as covered by Freedman. Freedman does not disclose the structure of the sound effects processor (122). Therefore, Freedman makes obvious all limitations of the claim with the exception *wherein distortion of the acoustic signal is provided by a digital signal processor*.

Bottoms discloses that the voice modification circuitry (figure 2, element 130) can be implemented using a programmable digital signal processor (i.e. *wherein the distortion of the acoustic signal is made in a digital signal processor*) (column 5, lines 15-17).

It would have been obvious to one of ordinary skill in the art to implement the sound effects processor of Freedman using a programmable digital signal processor as taught by Bottoms simply because Freedman does not disclose how to implement the sound effects processor.

**Claim 32** includes essentially the same limitations as those presented in claim 23, as covered by Freedman in view of Bottoms, and is rejected for the same reasons.

**Claim 24** is limited to *a method according to claim 20*, as covered by Freedman. Freedman does not disclose the structure of the sound effects processor (122). Therefore, Freedman makes obvious all limitations of the claim with the exception *wherein distortion of the acoustic signal is provided by a digital signal processor*.

Bottoms discloses that the voice modification circuitry (figure 2, element 130) can be implemented using a programmable digital signal processor (i.e. *wherein the distortion of the acoustic signal is made in a digital signal processor*) (column 5, lines 15-17).

It would have been obvious to one of ordinary skill in the art to implement the sound effects processor of Freedman using a programmable digital signal processor as taught by Bottoms simply because Freedman does not disclose how to implement the sound effects processor.

The transmitter (112b) corresponds to a second signal processor *separate from* the sound effects processor (122), however, Freedman does not disclose its type, i.e. digital or analog. Therefore, Freedman in view of Bottoms makes obvious all limitations



of the claim with the exception of a *digital signal processor performing speech coding of an acoustic signal*.

The examiner takes Official Notice of the fact that digital voice coding was well known at the time of the invention and was used in wireless telephones in order to reduce transmission bandwidth requirements while maintaining objective and subjective quality.

It would have been obvious to one of ordinary skill in the art at the time of the invention to transmit signals using digital voice coding techniques as was known in the prior art because Freedman does not disclose the structure of each transmitter and because digital voice coding reduces transmission bandwidth requirements while maintaining objective and subjective quality.

**Claim 33** includes essentially the same limitations as those presented in claim 24, as covered by Freedman in view of Bottoms, and is rejected for the same reasons.

**Claim 27** is limited to a *method according to claim 20*, as covered by Freedman. Again, it is noted that Freedland is silent as to how to implement the sound effects processor and is silent on how to provide selection between the various types of sound effects. Therefore, Freedman makes obvious all limitations of the claim with the exception *wherein a user of the first communication terminal selects the distortion profile for each call set-up*.

Bottoms provides a basic switch-based user interface for selecting between a plurality of sound effects to be applied in real-time to an outgoing voice signal. The switch is indicated as signal (12) and contains K positions corresponding to K-1 sound

effects and an off position. The position of the switch controls the output of mux (140) based on its position such that the distortion profile may be set at any time during or before a call, i.e. *for each call set-up*. See column 3, lines 16-47.

It would have been obvious to one of ordinary skill in the art at the time of the invention to include the switching mechanism as taught by Bottoms to allow a user of the system of Freedland to select between the plurality of sound effect types.

**Claim 36** includes essentially the same limitations as those presented in claim 27, as covered by Freedman in view of Bottoms, and is rejected for the same reasons.

**Claim 28** is limited to *a method according to claim 20*, as covered by Freedman. Again, it is noted that Freedland is silent as to how to implement the sound effects processor and is silent on how to provide selection between the various types of sound effects. Therefore, Freedman makes obvious all limitations of the claim with the exception *wherein a user of the first terminal selects the distortion profile during a call*.

Bottoms provides a basic switch-based user interface for selecting between a plurality of sound effects to be applied in real-time to an outgoing voice signal. The switch is indicated as signal (12) and contains K positions corresponding to K-1 sound effects and an off position. The position of the switch controls the output of mux (140) based on its position such that the distortion profile may be set at any time during or before a call, i.e. *during a call*. See column 3, lines 16-47.

It would have been obvious to one of ordinary skill in the art at the time of the invention to include the switching mechanism as taught by Bottoms to allow a user of the system of Freedland to select between the plurality of sound effect types.

**Claim 37** includes essentially the same limitations as those presented in claim 28, as covered by Freedman in view of Bottoms, and is rejected for the same reasons.

**Claim 29** is limited to *a method according to claim 20*, as covered by Freedman. Again, it is noted that Freedland is silent as to how to implement the sound effects processor and is silent on how to provide selection between the various types of sound effects. Therefore, Freedman makes obvious all limitations of the claim with the exception *wherein a user of the first terminal changes the distortion profile during a call*.

Bottoms provides a basic switch-based user interface for selecting between a plurality of sound effects to be applied in real-time to an outgoing voice signal. The switch is indicated as signal (12) and contains K positions corresponding to K-1 sound effects and an off position. The position of the switch controls the output of mux (140) based on its position such that the distortion profile may be set at any time during or before a call, i.e. *during a call*. See column 3, lines 16-47.

It would have been obvious to one of ordinary skill in the art at the time of the invention to include the switching mechanism as taught by Bottoms to allow a user of the system of Freedland to select between the plurality of sound effect types.

**Claim 38** includes essentially the same limitations as those presented in claim 29, as covered by Freedman in view of Bottoms, and is rejected for the same reasons.

### ***Allowable Subject Matter***

The following is a statement of reasons for the indication of allowable subject matter:

3. **Claims 26 and 35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.**

**Claim 26** is limited to *a method according to claim 20*, as covered by Freedman. The rejection of claim 20 relied on the fact that the limitation of a phonebook was a non-functional recitation since it did not positively indicate how the phonebook was different than any other type of data structure capable of storing distortion profiles. However, the limitation *wherein a user of the first communication terminal selects the distortion profile for each person in a phone-book of the communication terminal* transforms the phonebook into a functional limitation where name data is stored in addition to distortion profile information. In addition, this limitation is distinguishable over Freedman because Freedman makes no indication that each distortion profile is associated with a name listed in said phonebook. Thus, claim 26 is allowable over Freedman.

**Claim 35** includes essentially the same limitations as those presented in claim 26, and is allowable over Freedman for at least the same reasons.

### ***Response to Arguments***

Applicant's arguments, filed 26 October 2004, with respect to claims 20-38 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter F Briney III whose telephone number is 571-272-7513. The examiner can normally be reached on M-F 8am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2644

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WFB  
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